

# EXECUTIVE SUMMARY

OF

**DRAFT ENVIRONMENTAL IMPACT ASSESSMENT &  
ENVIRONMENTAL MANAGEMENT PLAN REPORT**  
(Pre-requisite for Public Hearing for grant of Environmental Clearance)

## **‘Gothra Parasrampura West Limestone Mine Block’**

(Capacity-1.0 Million Tonnes Per Annum of Limestone, Ore to Overburden ratio of 1:1.55, Topsoil 248750 cum (during first five years of the Plan period) along with crusher 300TPH, Mine Block area-287.7539 Ha.)

**Location: Gothra Village, Navalgarh Taluk, Jhunjhunu District,  
Rajasthan State**  
**Mineral Block (E-Auctioned) Area : 287.7539 Ha.**

**PROJECT PROPONENT**

**M/s. ACC Limited**

**OCTOBER, 2024**

**EIA CONSULTANT**



**M/s Ecomen Mining Private Limited**

[Formerly known as Ecomen Laboratories Pvt. Ltd.]

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NABET Certificate No. NABET/EIA/2023/RA 0203(Rev 02), dated 27.03.2024,  
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'Gothra Parasrampura West Limestone Mine Block' of M/s. ACC Limited**

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**1.0 Introduction:**

'Gothra Parasrampura West Limestone Mine Block' located at Gothra Village, Navalgarh Taluk, Jhunjhunu District, Rajasthan State, for which a Letter of Intent (LOI), is issued by Government of Rajasthan for the grant of Mining Lease in accordance with the Mines and Minerals (Development and Regulation) Act, 1957 and its amendments and Mineral (Auction) Rules, 2015 including subsequent amendments, to M/s. ACC Limited, having its registered office at ACC Limited, Adani Corporate House, Adani Shantigram, Ahmedabad.

The ACC Ltd. has obtained the Terms of References (TORs), issued by MOEF & CC, vide its letter No F.No. IA-J-11015/36/2023-IA-II(NCM) dated 29/01/2024 for conducting EIA-EMP studies and the present Draft EIA/EMP is prepared in compliance with the conditions laid down in the above mentioned TOR. The Baseline Data was collected during the Post monsoon season covering the months of October 2023 to December 2023.

**2.0 Project Description:**

**2.1 Salient Features of the Mine Block:**

- ❖ The 'Gothra Parasrampura West Limestone Mine Block', (e auctioned Mine Block), over an extent of 287.7539Ha., located in Gothra Village, Navalgarh Taluk, Jhunjhunu District, Rajasthan State.
- ❖ The total Mining Block area is 287.7539 Ha, comprising of 267.036Ha area is private land and 20.7179Ha. area is Government lands. There is no forest land within the Block area.
- ❖ The proposed Production Capacity is 1.0 Million Tonnes Per Annum of Limestone, Ore to Overburden ratio of 1:1.55, Topsoil 248750 cum (during first five years of the Plan period) along with crusher 300TPH, Mine Block area-287.7539 Ha.
- ❖ The capital cost of the project is Rs. 134.17Crores, The Annual budgetary provisions have been done for implementing various environmental protective measures, as Rs. 190.0 lakhs as capital cost and Rs. 70.0 lakhs as recurring cost. The proposed total capital budget is to the extent Rs. 30.0 Lakhs.
- ❖ The total mineral reserves as on 01-03-2023 are 69298009.95 Tonnes (69.92 Million Tonnes). Considering the Limestone production of 1.0 Million Tonnes per annum, the expected life of the mine is about 69 years from the date of execution of mining operations. Also, additionally detailed G1 stage exploration will be complied with the MEMC Rules, 2015 during the plan period may upgrade the resource and enhance the life of the mine. However, the Mining Lease will be valid for 50 years.
- ❖ Mine Block area falls in Topo sheet no 45M/5 of Survey of India.
- ❖ As per the MCDR 2017, the Mine Block is 'A' Category project, non-captive project and mining will be open cast method and mechanized.
- ❖ The Mining Plan along with Progressive Mine Closure Plan, is approved by Indian Bureau of Mines, Ajmer, MCDR-MPCOLST/7/2023-AJM-IBM-RO-AJM dated

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30/05/2023.

**2.2 Environmental Setting:**

The key geo-physical aspects related to the project environmental settings are highlighted below:

- ❖ The nearest River is Udaipur Lohagarh ki Nadiat 4.4Km
- ❖ There is no national park/wildlife sanctuary/biosphere reserve/tiger reserve/ elephant reserve/coastal zone, archaeological site/historical places in the core and buffer zone
- ❖ The Desert thorn forests (6B/C1), Zizyphus Scrub (6B/DS1), Babul Forests (5B/E3) & Acacia Senegal Forest (6/E2) are dominant forests of Navalgarh area, at a distance of 32 Km. from the Mine Block.
- ❖ There exists habitation- Part of Village Basawa falls in the western part of block area upto almost 200m. within Mine Block and Village Nehron ki Dhani - in the southern part of the area up to 100 m within the Mine Block area.
- ❖ The Govt. Primary School is located -Within Mine, along the Western Mine Block boundary, along the State Highway-25B
- ❖ Other operational industries in the study area (10Km radius area along the Mine Block Boundary): - Shree Cement Limestone Mine @ 0.67Km and its Integrated Cement Plant @1.6Km from the Mine Block.
- ❖ Connectivity: - Nearest Railway Station: - Kolida Badi -10 Km, Jaipur Airport-155Km, PWD road from village Baswa to Chaurhani passes through Block area. State Highway SH-25B passes through Block Area in NW part of Block area.

**2.3 Project Features**

- ❖ Land Requirement: - The entire mine block area of 287.7539 Ha will be utilized for the Mining and allied activities.
- ❖ The total requirement of water is around 75 KLD which will be sourced from ground water and rain harvested water and STP treated water from Basawa. The water requirement breaks up is as: - Dust suppression -50 KLD, Sanitation and drinking- 2 KLD, Afforestation. -23 KLD, Total-75 KLD

- ❖ Power Requirement: -

The estimated peak power requirement for 'Gothra Parsrampura West Limestone Mine Block is 1.0 MW power requirement for crusher which will be sourced from Rajasthan Electricity Power Grid and same power source will be utilized for electrification of office

Manpower Requirement: -

The Project shall provide direct employment to about 85 people, which includes mine officials, skilled, semi-skilled and unskilled labor and about 100 indirect employment opportunities in the form of hired truck drivers, hired machine operators, local workshops, contract workers for construction works like parapet wall, tarpaulin covering work, plantation work, cleaning works etc.



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**2.4. Mining Methodology:**

Mining will be open cast, mechanized and in a systematic manner. The Mine benches will be formed with the Heavy Earth Moving Machinery (HEMM) based on the design and year wise production plans and within the permissions given by statutory agencies where the height is maintained at 9.0m maximum & working bench width will be more than height, the existing roads will be extended upto the pit as per requirement and the gradient of 1 in 16 will be maintained as per MMR 1961. For blasting, controlled blasting technique, with Aluminized Slurry Explosives (Large Diameter) will be used. The waste generated during the mining, will be dumped at the earmarked places as per the Approved Mining Plan.

The loaded limestone will be fed to the crusher. The excavated Limestone will be crushed to get the product of 100mm size. The Final product will be consumed in Group's existing Cement Plants within the State of Rajasthan to replace purchased Limestone procurement and meet desired quantity and quality requirement till the commissioning of Cement Plant adjacent to Mine Block:-

- i. Lakheri Cement Works (342 Km- M/s ACC Ltd.,-Adani Group ),
- ii. Marwar Mundwa (213Km-M/s Ambuja Cement Ltd.,-Adani Group) and
- iii. Rabriyawas (260 km-M/s Ambuja Cement Ltd.,-Adani Group) Cement Works

The balanced production quantity if any, will be stacked within Mine Block as per the Approved Mining Plan. ACC Ltd. has a plan to install its own Cement Plant in nearby location of the present Mine Block, in near future.

The Project Proponent propose to construct underpass connecting proposed pit (southern part of Mineral Block) to proposed Dump site (Northern part of Mineral Block) in order to transport waste material from proposed pit to the area demarcated for dump and also to enable unhindered traffic movement in the existing public road without disturbance to the public on obtaining necessary permissions.

**3.0 Description of the Environment:**

The "Gothra Parasrampura West Limestone Mine Block" is the core zone for the present EIA study. The area encompassing 10 Km radius from the boundary of the core zone has been defined as the buffer zone. The core zone and the buffer zone together constitute the study area. The Baseline Environmental data with respect to Air, Water, Noise and Soil Quality in the study area for the present EIA study is conducted during Post Monsoon Season 2023, covering October 2023 to December 2023. The various studies on hydrogeology, flora, fauna, and socioeconomic study were also conducted during the same period. Sampling and analysis has been carried out by the M/s. Ecomen Mining Pvt. Ltd.

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(Formerly known as 'Ecomen Laboratories Pvt. Ltd.),' Lucknow, recognized by MoEF&CC and accredited by NABET.

The various studies on water, flora, fauna, and socioeconomic study were conducted during the same period. Sampling and analysis has been carried out by the M/s Ecomen Laboratories, Lucknow, Lab recognized by MoEF&CC and accredited by NABL. The hydrogeological study is being conducted by the M/s. Geo Climate Risk Solutions Pvt. Ltd. Visakhapatnam, **Accredited Groundwater Consultants by the Central Groundwater Authority, Ministry of Jal Shakti, Government of India.**

### **3.1. Physiography:**

The area is almost flat and plain terrain with a gentle slope towards South and South West. The highest and lowest altitudes are at 439.00m MSL and 420m MSL respectively. The average level is 429m MSL. The elevation difference is 19m.

### **3.2 Meteorology:**

The climate of Jhunjhunu district in Rajasthan is arid with very hot summers and cold winters. In winter, the temperature may go below 0 °C (32 °F) while in summer it may exceed 50 °C (122 °F). Hot wind called loo blows during the hotter months. Annual rainfall varies from 450 to 600 mm. The study period- months of October 2023 to December, 2023 is pleasant and sunny during the day and breezy in the evening. Predominant winds blowing from East-South East directions to North-North West, wind Speed in the range of calm to 15.8 Kmph. During the study period, the minimum temperature was 3°C and maximum temperature was 46°C. Relative humidity ranges from Min. 34 % to Max. 48%.

### **3.3 Ambient Air Quality:**

The study area represents the Industrial, Mining, Residential and Rural Areas. Calibrated Fine Particulate Samplers have been used for monitoring of PM<sub>2.5</sub>. Calibrated Respirable Dust Samplers have been used for monitoring of PM<sub>10</sub>. Gaseous samples have been collected by integrated gas sampling assembly.

The total 8 no. of monitoring stations, one within the core zone and seven number of monitoring stations within the buffer zone have been selected for the Ambient Air Quality Monitoring (AAQM) with due consideration to the CPCB guidelines.

The results of the air quality monitoring are well within the permissible limits for the industrial, residential, rural and other areas as per the National Ambient Air Quality Standards (NAAQS) of Central Pollution Control Board (CPCB).

A maximum value of PM<sub>10</sub> of 61.52 µg/m<sup>3</sup> was observed at Basava Village and minimum value of 32.68 µg/m<sup>3</sup> was observed at Minin ki Dhani Village.

A maximum value of PM<sub>2.5</sub> of 37.12 µg/m<sup>3</sup> was observed at Govt. School and minimum value of 17.28 µg/m<sup>3</sup> was observed at Gothra Village.



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A maximum value of SO<sub>2</sub> of 19.70 µg/m<sup>3</sup> was observed at Basava Village and minimum value of 6.78 µg/m<sup>3</sup> was observed at the Hiran Ki Dhani Village.

A maximum value of NO<sub>x</sub> of 31.98 µg/m<sup>3</sup> was observed at Basava Village and minimum value of 13.42 µg/m<sup>3</sup> was observed at Kankarwali Ki Dhani Village

The other parameters (CO, O<sub>3</sub>, NH<sub>3</sub>, PB, BAP, AS, NI, Benzene) are found below the detectable limits.

### 3.4. Noise Levels:

Sound Pressure Level (SPL) were measured at all (8) noise sensitive receptors identified during site reconnaissance. The readings were taken for every hour for 24 hours. The day noise levels have been monitored during 6 am to 10 pm and night levels during 10 pm to 6 am at all the locations covered in 10 km radius of the study area. Noise level varies from 42.5 to 52.2 Leq dB (A) during day time and from 36.0 to 43.6 Leq dB (A) during night time.

The minimum noise levels were observed at Village Gothra during day time and near Village Nehro ki Dhani at the night time as there is less habitation and there is no other major source of noise pollution near to that area. During construction activities, a minor temporary increase in noise levels near to the project site. From the above study and discussions, it can be concluded that noise levels in the study area are well within the prescribed limits as prescribed by the Noise Pollution (Regulation and Control) Rules 2000.

### 3.5 Water Quality:

The water quality monitoring was done at 11 locations within 10 km. radius area of lease. Out of 11 samples collected from different locations, 4 are from surface water and 7 samples are from ground water/ drinking water.

**Surface Water:** - The surface water quality when compared with water quality criteria as per Central Pollution Control Board, it was found that the water quality is good for irrigation purpose outdoor bathing. However, the river is seasonal and very less water was found during the sampling period.

**Ground Water:** - The physico-chemical quality of groundwater was compared with drinking water standard (IS:10500- 2012). The pH of the water samples ranged from 7.61 to 8.17. As per the drinking water standards, pH has an optimum range of 6.5 to 8.5, therefore, the study area has a pH ranging with the prescribed limits; thus, the samples are fit for drinking purpose. The color and turbidity were found to be BDL to 1.8 as the total suspended solids in the ground water samples were also observed to be BDL. The odour and taste were found agreeable at all sampling locations. The observed values of parameter varies from: Total Hardness (160.0 to 585.5 mg/l), Alkalinity (152.0 to 200.0 mg/l), Total Dissolved Solids (426.00 to 762.00 mg/l) however, maximum hardness, total

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dissolved solid and alkalinity were found in the sample of villages Basawa, Gothra, Nehro Ki Dhani, Nolkhan Ki Dhani and Project site. The concentration of chloride was found to be (26.0 to 94.0 mg/l) and sulphate was (21.00 to 65.0 mg/l), Nitrate (7.23 to 13.3 mg/l), Calcium (38.4 to 64.0 mg/l), Magnesium (12.64 to 17.50 mg/l).

### 3.6. Soil Quality:

Total six locations were selected for analyzing the soil quality status in the study area, one from the Core Zone and five from the buffer zone, collected from agricultural and orchard lands from the buffer zone areas, for physio-chemical analysis. Soil pH plays an important role in the availability of nutrients and in soil microbial activity. The results show that the soils pH varies from 6.95 to 7.92, which shows that the soil is slightly alkaline to moderately alkaline in nature which is an optimal range for the various principle crops such as wheat, mustard, Bajra, guar, pulses such as Gram, Moong, and commercial crops such as Methi, onion, chilies etc. The soil texture is sandy clay loam which makes it more fertile and suitable for growing various root crops. water holding capacity varies in between 28.6 to 36.5%. The nutrient content is low and need slight addition of fertilizer for good yield.

### 3.7. Land Environment:

The total Mining lease area is 287.7539 Ha, comprising of Patta and Government lands, out of which mostly of Patta land. As per field observations as well as in tender document as provided during auction There are 3 nos. of existing old abandoned quarries with a broken-up area of 2.89 Ha in the subject area of auctioned mining block There will be two no. of working pits for limestone ore in the first five-year plan period.

The land use/ land cover map has been generated on 1:50,000 scale using digital classification of Sentinel. Based on the methodology developed for the present land use/ land cover, categories have been grouped under the following major land use/land cover categories, the summary of land use within the study area of the project is presented below:

**Major Land Use/Land Cover Categories of Study Area**

Sl.No.	Category	Area in Ha	% of the Study Area
1	Fallow & Crop Land	26744.33	69.5028905
2	Tree Cover	810.16	2.105435499
3	Cement Plant	569.71	1.480556505
4	Barren Land	7757.69	20.16060521
5	Settlements	2588.65	6.72735707
6	Water Bodies	8.91	0.023155217
	<b>Total</b>	<b>38479.45</b>	<b>100</b>



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The present land use pattern as on 01/03/2022 and at the end of the 1<sup>st</sup> Mining Plan period is as given below: -

Sr. No.	Land Use Category	Present land use as on 01-03-2023 area inHa)	Land Use at the end of the First five years of MiningPlan period
1	Area under pits and Excavation	2.89	19.14
2	Area under Topsoil stacking	0.0	0.99
3	Area under dumps	0.0	13.56
4	Mineral Storage	0.0	1.0
5	Area under Mine Infrastructure (Plant, shades, buildings etc.)	0.0	4.0
6	Area under Public Infrastructure/utilities(water bodies, road, railways, electric lines, telephone lines etc.) Road	1.9	2.3
7	Area under Habitation	34.0	34.0
8	Area under Monuments and places of Historical Importance	0.0	0.0
9	Area under protective measures	0.0	0.0
10	Barren/waste Land	11.7879	11.7879
11	Private land ( cultivated)	237.1760	200.976
	<b>Total</b>	<b>287.7539</b>	<b>287.7539</b>

At the conceptual stage, out of the total 287.7539Ha Mine Block area, at the Conceptual stage, only 184.30 Ha area will be used for Mining and allied activities and an area of 96.75Ha area will remain undisturbed.

### 3.8. Biological Environment:

From the primary survey and as per forest department records and review of literature, there are no sanctuaries, national park, biosphere reserves in the study area. The diversity survey indicated that the diversity of trees, shrubs and herbs were high in buffer zone compare to core zone. The landscape in the core zone is scattered tree & shrub vegetation therefore representing lower value of vegetation compared to the buffer zone due to limited mine area.

The Project Buffer area is plain. Human settlement, Commercial setup, agriculture land and Sterile land. Vegetation covered with tree species are natural thorny species i. e. *Prosopis cineraria*, *Acacia leucophloea*, *Acacia nilotica*, *Prosopis juliflora*. Somewhere monoculture of *Azadirachta indica* and *Dalbergia sissoo* also developed in surrounding the crop land area.

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The Buffer Zone is 10 km radius of Mining area which mostly as Plain area however some artificial heaps of sand are generated due to other mining activities. Area is arid zone but support good Faunal diversity in the buffer zone. Total 8 Fauna species are found as Schedule I species in buffer area in which 3 are Mammal, 3 are Reptile & 2 are avifauna. For these 8 species Site specific conservation & Management plan has been prepared with proper budget and submit to DFO Jhunjhunu which will be implemented with specific planning with DFO Jhunjhunu & Local Forest Department

### **3.9 Socio-Economic Environment**

Primary survey was conducted during October 2023 and primary data was collected based on specific designed questionnaire and focused group discussion. Villages covered in rural area villages i.e. Gothra, Basawa, Bhojnagar, Khojas, Mohanbari, Neharon Ki Dhani, Barwa, Tonk Chhilari, Khiror & Bharwari. The study area falls in the district Jhunjhunu. Total Population of District is 2,139,558 (Census, 2011), Population density of District is 930 /Sq Km. Males constitute 54% of the population and females, 46%. District has an average literacy rate of 74.72% is very good which is higher than the national average of 59.5%. The sex ratio for women in the district is 950 for every 1,000 males.

The ratio of Schedule Caste (SC) and Schedule Tribe (ST) to the total population is 14.77% and 2.5% in study area. Literacy rate of study area is 61.80 %. The occupational structure of residents in the study area is analyzed with reference to main workers, marginal workers and non-workers. The infrastructure and amenities available in the area denotes the economic wellbeing of the region. The area as a whole possesses moderate level of infrastructural facilities. Anganwadis and schools up to primary level in both district. Schools up to Middle Level are found in some villages / panchayats.

Villages have fare road connectivity and Private bus operators operate transport service in the villages. Road condition of the villages is fairly good and the area is well connected with the three major highways such as SH- 8 located at 7.5 km in west direction connecting Sikar to Luharu, SH- 37 located at 13 km in East direction connecting chomu to churu and NH- 11 located at 26 km. in west direction connecting Jaisalmer to Rewari.

### **4.0 Anticipated Environmental Impacts and Mitigation Measures**

The environmental impacts due to the proposed mining is associated with activities like drilling, blasting, crushing, ore loading & ore transportation in opencast mining have been assessed and adequate management plan has been developed to mitigate the impacts. There is one operating mine, one Cement Plant and no of mine quarries situated within 0.6 to 9.0 Km range of the present Mine Block. The cumulative impact assessment has been carried out considering the operating industries/mines/quarries within 10Km radius of the present Mine Block. The existing environmental scenario reveal that all environmental attributes in respect of air, and water quality, noise status etc. are well



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within sustainable statutory standards. As and other industry holders nearby observe all regulatory standards as per the Environment Protection Act 1986 and amended time to time.

#### **4.1 Air Environment**

Opencast mining operations contribute towards air pollution in two ways: addition of gaseous pollutants to the atmosphere and the dust particles. The gaseous pollutants include NO<sub>2</sub>, SO<sub>2</sub> and CO. Following measures will be undertaken to control the Air pollution/dust generation during the mining activities: -

- Transportation trucks will be loaded to the prescribed capacity and covered with tarpaulin.
- Unpaved roads will be regularly sprinkled with water for which two water tankers each of 5000 liters' capacity will be provided.
- Inactive portions of dump slopes will be covered with grass cover followed by plantation.
- Latest machinery having air-conditioned cabin will be used for loading and dozing operations.
- Proper maintenance of transport machinery with regular PUC will be done.
- Providing proper exhaust chimney height to DG set.
- General aspects of air quality management will be included in induction training to be provided to all employees.

#### **4.2 Impact on Surface water and Ground Water Quality**

There are no surface water bodies within the lease area. The area is almost flat and plain terrain with a gentle slope towards South and South West. The study area covers neither major rivers (nor) Minor River. There are no surface water bodies within the lease area. One surface water body is present within 10 km of study area from the project site i.e. Udaipur Lohagarh Ki Nadi which is located at ~4.0 km in ENE direction from the project site. Since the ore or the waste does not contain any leachable toxic elements or heavy metals, there shall be no pollution of water except the solid suspensions.

#### **4.3 Impact on Drawing Surface/ Ground Water & Water Conservation**

The mining activity in the two pits is not likely to intersect the water table during the Mine Plan period.

#### **4.4 Solid Waste:**

The total quantity of mineral reject likely to be handled during the plan period will be 5067369.00 Tonnes which will be dumped within the lease at the earmarked places as per the Approved Mining Plan.

#### **4.5 Noise Environment:**

Noise Levels and Ground Vibrations with the mining operations, due to machinery for mine development, excavation, transportation and crushing of limestone, it is imperative

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that noise levels would increase. However, the expected noise levels will not have any significant adverse effect on the outside community as habitation area is far away.

**Mitigation Measures:**

- Workers working in highly noise-prone areas will be provided with ear muffs or ear plugs as a safety precaution and workers will not be allowed to enter into noise-prone areas without the use of ear masks.
- Personal Protective Equipment (PPEs) like ear muffs and ear plugs will be provided to all the employees and workers operating in mines.
- Noise-proof & dust-proof cabins will be provided for all HEMM with air-conditioned cabins. To isolate employees from noise and dust, soundproof cabins will be installed in crushing and screening plants.
- Proper and periodical maintenance of HEM machinery
- Noise levels will be controlled by using optimum explosive charge, proper delay detonators, use of shock tubes and proper stemming to prevent "blowout"
- The speed of dumpers will be limited to a moderate speed of 20 kmph.

**4.6 Mitigation Measures During Blasting:**

- Ground vibrations will not affect the structures in the vicinity of ML area as blasting will be done in accordance with standards prescribed by DGMS for controlled blasting.
- Explosives charge per hole and per delay will be maintained as per DGMS guidelines.
- NONEL will be used to control ground vibrations, noise & fly rocks.
- Controlled Blasting will be carried out. Blasting will be done during day time only.

**4.7 Mitigation Measures during Crusher Operations:**

- Insulators will be provided in the crusher to control the noise pollution.
- Use of closed acoustic system will be done
- Development of green belt/plantation in all around the vicinity of the crusher will be done.

**4.8 Impact on Land Environment:**

The Project Proponent proposes to maintain the 7.5 m buffer zone all along the mine block boundary. The land use shown is planned considering the available Reserves and Resources. The future land use will be planned considering the results of the proposed exploration. An area of 2.5 Ha will be safety zone plantation. At conceptual stage, out of the total 287.7539.0Ha lease area, only 184.30 Ha area will be used for Mining and allied activities and an area of 96.75Ha area will remain undisturbed. As part of the Mine Closure Plan, 106.89Ha area will be brought under water reservoir. This water reservoir will serve in augmenting the ground water condition of the region and also the pit discharge water will be supplied to local villagers for agricultural purpose.



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**4.9 Impact on Biological Environment:**

As the forest areas fall within 10 km radius of the ML, a full-fledged biodiversity assessment study has been taken up by the proponent along with wildlife conservation plan with financial outlay of Rs.5.0 lakhs per annum for wildlife conservation.

The impacts will be minimized by opting for plantation with locally available varieties of species to make up for the lost vegetation. The impact of flora will be limited to core zone only as there will not be any removal of vegetation outside the core zone.

Although there are no Wildlife Sanctuaries, National Parks, Bio-sphere Reserves within a radius of 10Km from the lease area, in order to provide protection to scheduled species observed in the buffer zone of the study area and also to flora and fauna of the region, a management plan for conservation of Wildlife has been formulated along with budgetary provisions, as per the guidelines by the Rajasthan Forest Department for implementation for providing effective protection to the flora and wildlife in the study area.

**4.10 Impact on Socio Economic Environment:**

In order to ascertain the socio- economic profile of the study area, primary and secondary data from the project area and census records was collected and analyzed. The project proponent proposes to ensure its participation in social activities of the surrounding community through awareness, welfare programs and CSR activities.

This mine shall provide direct employment to about 85 people, which includes mine officials, skilled, semi-skilled and unskilled labour and about 100 indirect employment opportunities in the form of hired truck drivers, hired machine operators, local workshops, contract workers for construction works like check dams, plantation work, cleaning works etc. For the local villagers. The mining activities help in sustainable development of this area including further development of physical & social infrastructural facilities. Also by this mining activity, the country achieves the revenue in terms of taxes on limestone production and exchequer revenue for State in terms of royalty etc. The project proponent shall assess the health conditions of the workers as per the Mines Act Rules Regulations and DGMS guidelines. Noise, air, water quality will be maintained well within the limits.

**4.11 Occupational Health and Safety:**

All occupational health and safety issues shall be managed as per the standards and guidelines specified by Mine regulations and DGMS norms time to time. Safety of employee during drilling, blasting, loading, transportation operations and maintenance and handling of explosive materials will be taken care of as per mine regulations. PPEs

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such as dust masks, ear plugs/earmuffs will be provided to workmen employed in mines. Hence, no significant impact on health of workmen is envisaged.

**5.0 Alternative Analysis:**

Mining, being always a site specific project and minerals are confined to a particular area irrespective of the classification of the land. Therefore, selection of alternate site for the project is not applicable.

**6.0 Environmental Monitoring Program:**

A detailed post project monitoring in respect of air, water, soil, land use, occupational noise, etc. to assess the changes has been evolved covering various phases of project advancement. A network of sampling locations around the operational facilities has been established and will be further improved. The monitoring shall include the compliances to legal and statutory controls imposed on the operation as well as other corporate commitment to responsible environment management. Systems for monitoring resources inputs (energy, chemical use, water, raw materials), equipment and plant performance and waste. The methodologies adopted for environmental monitoring will be in accordance with the CPCB, SPCB and Indian Bureau of Mines requirement. generations will also have strengthened apart from the existing operating systems. A detailed waste management plan with monitoring programme will be in place during various phases of activity.

**7.0 Additional Studies**

In additional studies, Hydrogeological studies are also done through CGWB accredited consultants, Slope stability, Risk Analysis followed by Disaster Management Plan, which will help in identifying the possible risks and to promote towards preparedness to counter any mishap. Risk analysis and disaster management plan have been prepared and incorporated in EIA Report.

**8.0 Rehabilitation and Resettlement (R& R):**

As per the Approved Mining Plan and referring to Conceptual Plan, mining activities will not result in any displacement of the habitation. Project Proponent propose to maintain buffer zone of 200m from the habitation located towards the southern side of the Mine Block. Therefore, R&R is not applicable.

**9.0 Project Benefits and Costs Evaluation:**

All the Projects have its own advantages and disadvantages. Normally, every Mining Project has the potential to result primarily in economic benefits to the Project Proponent, the Local Community and also to the Government.

The 'Gothra Parasrampura West Limestone Mine Block' is expected to benefit the following stakeholders till the Life of the Mine.



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- A. The State & Central Government-in the form of taxes, royalty
- B. The Social Benefits-in the form of generation of employment, water augmentation, CSR programs
- C. Implementation of time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years
- A. The Implementing Agency-in terms of profit, enhance the company value, employment opportunity, contribution to the economy

**10.0 Corporate Social Responsibility:**

The Project Proponent proposes to undertake a number of activities under the Corporate Social Responsibility Initiative during the operation of "Gothra Parasrampura West Limestone Mine Block". The capital CSR Budget has been worked out as per the expressed felt needs of villagers during Rapid Rural Appraisal. The proposed total capital budget is to the extent Rs. 30.0 Lakhs (Rupees Thirty Lakhs Only) and will be spent in villages of study area.

**11.0 Environment Management Plan:**

A Comprehensive Environment Management Plan including development of Green Belt has been suggested. Identification of all potential environmental impacts of a project is an essential step of Environmental Impact Assessment. These are critically examined and major impacts are further studied. In case of mining projects, change in topography and land use, air pollution, water pollution, waste management, biodiversity and socio-infrastructure issues are significant. The Mine will be operated taking all precautionary measures to reduce the impact of mining operations on Air, Water, Noise and Soil and ensuring all control measures to comply with the prescribed standards. Land use will be positive only, as major portion of the pit will be kept as water reservoir and afforested. Development of green belt along the boundary of ML area will ensure a better environment. The Annual budgetary provisions have been done for the implementing various environmental protective measures to the tune of Rs. 190 lakhs as capital cost and Rs. 70 lakhs as recurring cost.

**12.0 Disclosure of Consultants Engaged:**

The Draft EIA/EMP report for the proposed Limestone Ore production with respect to 'Gothra Parasrampura West Limestone Mine Block' is prepared by M/s Ecomen Mining Pvt. Ltd. (formerly known as M/s Ecomen Laboratories Pvt. Ltd.), Lucknow, accredited by QCI/NABET for preparing EIA/EMP in the sectors, including "Mining of Minerals including Opencast/Underground Mining" vide their certificate no. NABET/EIA/2023/RA 0203(Rev 02), dated 27.03.2024, valid till 22/03/2025.

**13.0 Conclusion:**

The proposed project is for production of 1.0 Million Tonnes per annum of Limestone

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with overall overburden ratio of 1:1.55. There shall be no adverse impact on environmental status of the area with the proposed mining activity. The Lessee has planned the effective Environmental Management Plan in line with mining operations and is sufficient to take care of environmental impacts. At the conceptual stage, out of the total 287.7539Ha lease area, at the Conceptual stage, only 184.30 Ha area will be used for Mining and allied activities and an area of 96.75Ha area will remain undisturbed. As part of the Mine Closure Plan, 106.82Ha area will be brought under water reservoir. This water reservoir will serve in augmenting the ground water condition of the region and also the pit discharge water will be supplied to local villagers for agricultural purpose. The proposed mining industry will improve the economic status of the people in and around the lease area, with the increased direct and indirect employment opportunities and the CSR benefits provided. Since, the limestone ore reserves of this area are economically viable, their proper utilization will improve the economic status of the people and the Country. Apart from Cess, DMF, NMET and Royalty, Govt. will be getting many indirect taxes like Road tax, and Sales tax. The above shows that the proposed mining activity of production of 1.0 MTPA of limestone ore for this mine is remunerative after meeting direct mining costs, environmental costs, cost on health & safety, socio economics, compensation for land, capital and & R&D costs and beneficial in terms of socio economics of the area and national mineral conservation.